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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/788,435 | 03/01/2004 | Woo Jin Chang | P69522US0 | 7024 |

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EXAMINER

HAM, SEUNGSOOK

ART UNIT PAPER NUMBER

2817

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/788,435 | Applicant(s) CHANG ET AL. | |
| | Examiner Seungsook Ham | Art Unit 2817 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/5/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-12 is/are rejected.
- 7) ☐ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 8 broaden the subject matter of claim 1 instead of further limiting the subject matter of claim 1 by reciting only the outer connecting portions are curved.

Claim 9 is redundant since the subject matter is already recited in claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Morz et al. (US '172).

Morz et al. (fig. 4) discloses a waveguide interconnection apparatus comprising: a first housing 9 having a first waveguide 11; a second housing 1 having a second waveguide 4 connected to the first waveguide; wherein a signal propagated from the first waveguide is reflected to have a predetermined angle when it passes an interconnecting portion of the waveguides; and at least one of an inner connecting

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portion and an outer connecting portion between the first and second waveguides is curved (col. 3, lines 6-34).

Regarding claim 11, it is inherent that the second rectangular housing 1 (where the waveguide 4 is located at) is bonded to a cover made of conductive material to form a waveguide to propagate the signal.

In response to the Applicant's argument (see REMARKS, filed on 8/5/05) that a curved waveguide section is not the same as a curved inner connecting portion and a curved outer connecting portion (see p. 5, fourth paragraph), the examiner respectfully disagrees.

It should be noted that claim 10 does not distinguish between the curved waveguide section and inner and outer connecting portion. Morz et al. (fig. 4) clearly shows the interconnecting portions of the waveguides 11, 4 are curved in inner and outer connecting portions.

Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Admitted Prior Art or Barnett et al. (US '728).

The Applicant's Admitted Prior Art (figs 1A and 1B) shows a waveguide interconnection apparatus, comprising: a first housing 10 having a first waveguide 10a, a second housing 20 having a second waveguide 2a connected to the first waveguide, wherein at least one housing has a rectangular parallelepiped structure 10a or 20a.

Barnett et al. (figs. 5 and 6) also discloses a waveguide interconnection apparatus, comprising: a first housing 30 having a first waveguide 31, a second housing

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28 having a second waveguide 38 connected to the first waveguide, wherein at least one housing has a rectangular parallelepiped structure 31, 38.

Claims 1, 2, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Alton (US '858).

Alton (figs. 3A-3B) discloses a waveguide interconnection apparatus, comprising: a first housing having a first waveguide 27; a second housing having a second waveguide 24 connected to the first waveguide; and a third waveguide 26 is reflected to have a predetermined angle when it passes an interconnecting portion of each waveguide, and both inner and outer connecting portions between the first waveguide and the second waveguide, and between the second waveguide and the third waveguide is curved. Moreover, Alton teaches that the waveguide interconnection apparatus operates at ultrahigh frequency signal (e.g., 915 MHz, col. 4, lines 62-66).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 6, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Alton (US '858).

Regarding to claim 3, Alton (fig. 3B) shows the second waveguide 24 having a first portion connected to the first waveguide 27, a second portion connected to the first

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portion (the middle portion), and a third portion 26. Providing each portion separately is considered as an obvious design modification since such modification does not alter the function of the waveguide.

Regarding claims 6, 7, and 11, "bonded" or "punched" cannot be given any patentable weight since these languages provide a method step in an apparatus claim. Moreover, it would have been obvious to one of ordinary skill in the art to provide rectangular waveguides instead of circular waveguides to obtain a desired mode since such design technique is well known in the art.

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seungsook Ham
Primary Examiner
Art Unit 2817

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September 14, 2005